Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

times with a faint tinge of lilac, then convex, soft, paler, becoming smoky-red or pale chestnut color, flesh reddish-white or grayish, tubes at first concave or nearly plane, stuffed, colored nearly like the pileus, at length paler, depressed around the stem, minute, round; stem stout, generally short, equal or slightly tapering upward, abruptly narrowed at the base, minutely furfuraceous, colored like or a little paler than the pileus, purplish-gray within; spores subferruginous, .00045 to .0006 in. long, .0002 to 00025 in. broad; pileus 3—10 in. broad, stem 2—4 in. long 6—12 lines thick. Woods and their borders. July to September. It belongs to the section *Edules*.

NEW SPECIES OF USTILAGINEAE AND UREDINEAE.

BY J. B. ELLIS AND B. M. EVERHART.

We have received from Prof. F. L. Scribner, of the Department of Agriculture, Washington, D. C., samples of several grasses, from the Rocky mountain region, infested with forms of *Ustilagineæ*, which we have not been able to refer satisfactorily to any published species and which we describe provisionally as new. Two *Puccinias* sent from Washington Territory by Mr. Suksdorf and an *Ustilaga* sent from Missouri by B. T. Galloway are also included.

TILLETIA FUSCA, E. & E. (N. A. F., 1,895).—In ovaries of *Festuca microstachys*. Spores mostly globose, 19—22 *u* or occasionally subovate, subelongated or otherwise irregular in shape, the surface covered with subhexagonal reticulations bounded by rather thick walls, about 1½ *u* high, overspread and partially hidden by a dirty, subhyaline (gelatinous?) layer, which envelops the dark brown body of the spores, through which the projecting walls of the reticulations are scarcely prominent. *T. sphærococca*, Fisch., and *T. Rauwenhoffii*, Fisch., have rather paler, larger spores, with larger and more prominent reticulations.

TILLETIA MONTANA, E. & E.—In ovaries of *Sporobolus gracillimus*. Spores globose, 19—22 *u*, or suboval, subelongated, 18—25 *u*; epispore, consisting of two layers, the outer one hyaline, about 2½ *u* thick, entirely covering the reticulations, which have thinner walls and are rather more irregular in shape than in the preceding species; the body of the spore is also lighter colored.

TILLETIA ASPERIFOLIA, E. & E.—In ovaries of *Sporobolus asperifolius*, has spores globose or subglobose, 17—20 *u*, pale brown; hyaline envelope about two *u* thick; reticulations subhexagonal or of irregular shape, with rather thick walls which rise through but hardly project above the surface of the enveloping, hyaline coat. Differs from both the preceding in its smaller spores and from the last also in the thicker walls of its reticulations, but is closely allied to the first-described species (*T. fusca*) which, however, has darker-colored spores.

TILLETIA CEREBRINA, E & E.—In ovaries of *Deschampsia cæspitosa* has globose, dark brown spores, 22—28 *u* in diam., outer hyaline coat about 2½ *u* thick, barely covering the projecting edges of the thick-walled, irregular, subcerebreform reticulations. Differs from all the three preceding species in its larger spores.

USTILAGO MEXICANA, E. & E.—In the ovaries of some undetermined species of *Muhlenbergia*. Collected on the mountains near Batopilis, Mexico (alt., 8,850 ft.), by Dr. E. Palmer. Spores black or violet-black, smooth, globose, 5—6 *u* or subelongated, 6—8 x 5 *u*. Nearly every ovary on the affected plants is filled with the dusty mass of spores.

USTILAGO UNIOLÆ, E. & E.—In ovaries of *Uniola gracilis*, from Texas. Spores subglobose, echinulate-tuberculose, 7—10 *u*, of a dull black color seen in mass. The affected ovaries are considerably swollen.

USTILAGO VIRIDIS, E. & E.—On *Setaria*, Louisiana. Rev. A. B. Langlois, No. 56. Forming a yellow-green coating on the outside of the seeds, which are swollen and become white and soft within; spores globose or nearly so, 4—5 *u*, rough warted.

SOROSPORIUM CONSANGUINEUM, E. & E.—In ovaries of *Aristida Rusbyi*, Scribner. Collected in Northern Arizona by Mr. Rusby. Spore masses globose or subelongated, 50—70 *u* in diam., composed of small (6—8 *u*), polygonal spores with the epispore smooth or nearly so. Differs from *S. Ellisii*, Winter, in its smaller, smooth spores.

UROMYCES ARISTIDÆ, E. & E.—On leaves of *Aristida*, New Mexico. III. Sori linear, 1—2 millim. long, naked (when mature), dark ferruginous-brown; spores loosely compacted in the sori, elliptical or obovate, 25—35 x 18—22 *u*, smooth, yellowish-brown, on long (80—100*u*), stout but deciduous pedicels, epispore not distinctly thickened above. Differs from *U. Poæ*, Rabh., and from *U. Dactylidis*, Otth., in its elongated sori and larger spores.

PUCCINIA SUBCIRCINATA, E. & E. (N. A. F., 1,840.)—On living leaves of *Senecio triangularis*, Mt. Paddo, Wash. Terr., August, 1885. W. N. Suksdorf, No. 197, I and III.

I. Aecidia gregarious, mostly surrounded by the sori of the teleutospores, mostly hypophyllous, shallow, about one half millim. in diam., with a spreading, toothed margin; spores globose, 12—15 *u* or subelliptical, 20 x 12—15 *u*, or subangular or otherwise irregular.

III. Mostly hypophyllous and arranged in a ring around the clusters of æcidia, but also more or less scattered and forming groups unaccompanied by æcidia or extending down on the petiole of the leaf; sori subhemispherical, lead-color, about one half millim., in diam., opening above in a circumscissile manner, with a distinct round opening, as if the top had been cut away, and discharging through this opening the abundant reddish-brown spores after the manner of a *Melanconium*; spores elliptical, scarcely constricted, minutely granular-roughened, mostly rounded at both ends, scarcely thickened at the apex, 22—30 x 16—20 *u*. On very short pedicels.

Puccinia nuda, E. & E.—On leaves of *Arnica foliosa*, Falcon Valley, Wash. Terr., July, 1885. W. N. Suksdorf, No. 200.

III. Sori amphigenous, scattered or gregarious, round, black, about one millim. in diam., color of the leaf around the sori pale yellowish; spores oblong elliptical or oblong-clavate, slightly constricted at the septum, strongly thickened at the apex, with a distinct, subhyaline, mostly oblique papilla, smooth, 35—45 x 19—22 *u*, pale at first but finally becoming quite dark, especially above, and then the upper cell becomes broader and the apex more obtuse; pedicels 90—115 *u* long; a few spores without septa 25 x 22 *u*, obovate, on long pedicels, were seen mingled with the others; also a few uredo spores globose, 25—30 *u* in diam., smooth or nearly so and without pedicels were seen in the same sori with the teleutospores. We have not seen *Puccinia arnicalis*, Pk., which was on *Arnica cordifolia*, from Colorado, and is said to have the "sori clustered, crowded or confluent, reddish-brown" and the teleutospores "scarcely constricted, minutely roughened" and the pedicel very short—characters which would seem to separate it from the Washington Territory specimens; nor does it seem properly referable to *P. Tanaceti*, to which it bears a general resemblance.

A NEW VOLUTELLA.

BY A. B. LANGLOIS.

Volutella Ellisii, Langlois.—Sporodochia sessile, hemispheric, of delicate rose color, ¼—½ millim. in diam.; hairs 80—100 x 3—4 *u*, hyaline, continuous, arising from the margin and from the whole surface of the membranaceous receptacle; conidia oblong, 6—10 x 2½—3 *u*, curvulate, obscurely guttulate; sporophores bacilliform, 18—20 x 3 *u*.

(Sporodochiis sessilibus, hemisphericis, lœte roseis, ¼—½ millim. latis; setulis 80—100 x 3—4 *u*, erectis, hyalinis, continuis ex margine vel toto membranaceo receptaculo assurgentibus; conidiis oblongis, 6—10 x 2½—3 *u*, curvulis, obscure guttulatis; sporophoris bacillaribus, 18—20 x 3 *u*, in culmis, vaginis foliis mortui graminum ex genere panicum principoliter, ad loca humida et umbrosa.)

A very attractive little fungus, on dead pieces of grass, particularly of the genus *Panicum*, lying on damp ground, partially in shade. Pointe a' la Hache, La. (No. 1000.) The long, white bristles seem to be very fragile and to fall away easily. This volutella seems to be intermediate between *V. Arundinis*, Desm., and *V. Cerryana*, Sacc., differing from both in its hemispheric sporodochia and in its conidia of intermediate size.